

Remarks

This amendment is submitted in response to the Official Action mailed April 26, 2006.

Claims 1, 3, 5, 6, 7, 8, 9, 10 and 11 remain in the application.

Claims 2, 4 and 12-40 have been canceled by this amendment.

It may appear that considerable amendments are made to the claims; however, such amendments simply cancel certain claims (2, 4 and 12-40) and incorporate the contents of certain claims (2 and 4) into claim1.

Claim 1 has also been amended to place it in a more orderly format. No new matter has been incorporated into the claims, nor would the amendment cause any additional search or effort on the part of the Office..

Review and reconsideration of this application are respectfully requested in view of the above amendment and the following remarks.

Election/Restriction

With respect to the previous election/restriction requirement, applicant has now canceled non-elected claims 12-38.

Objection to the Specification

The specification is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. The added material which is not supported by the original disclosure is as follows: relative amounts of vinyl acetate and comonomers are without basis in the

specification as originally filed. Hence, the amendment of "by weight" in regards to the amounts is new matter.

Additionally, the use of relative term "about" with respect to new amounts is new matter (e.g., "about 75% by weight ethylene-vinyl acetate" and 0 to about 10% by weight metal oxides").

#### Response to the Objection to the Specification

As stated in the previous amendment, applicant has reviewed the entire specification and has made editorial amendments where necessary.

1. With respect to the examiner's allegation that the relative amounts of vinyl acetate and comonomers are without basis in the specification, applicant has now deleted any reference to the term "by weight" in defining the relative amounts of "vinyl acetate" and "vinyl laurate" in the vinyl acetate-vinyl laurate copolymer, and in defining the relative amounts of "vinyl acetate" and "ethylene" in the ethylene-vinyl acetate copolymer. Applicant submits that the USPTO does not require that the relative amounts of the monomer units of a copolymer be defined in terms of "weight %", "mol %" or "other measure". A cursory review of patents issued by the USPTO reveals several issued patents in which, e.g., the vinyl acetate content of vinyl acetate copolymers is expressed simply as % vinyl acetate without further defining the amount as being weight % or mol %. Exemplary issued patents include US Patent 6,242,099 B2, col. 4, lines 38-46 and 58-67; Col. 9, lines 46-48, and claims 3, 21& 24, US Patent 6,242,503 B1, col. 4, lines 31-33, col. 5, lines 35-41; col. 13, line 27, col. 14, line 47 and 64-66; col 15, line 6; col. 16, examples 5D, 5B and 5B-5C; col. 17, lines 52-56, col. 19 line 22, col. 20 lines 49-50, col. 21, lines 23-24, 28-30 and 52-54, and col. 22, lines 15-16. Also the D'Amelia et al. patents defines the vinyl monomer units in simple "%" terms, see col. 4, lines 57-60, col. 5, lines 23-24, 54-57 and 62-63, col. 6, lines 15-18, 23-24, 27-30 and 64-67, and col. 9, line 68- col. 10, line 1. While other US patents may characterize the amounts of various monomers units in a copolymer or terpolymer in terms of

"weight %" or "mol %", this is strictly the preference of the patentee and does not represent the requirements of the USPTO. In view of the fact that the USPTO issues patents in which the monomer units in a copolymer are characterized simply in terms of "%" rather than "weight %" or "mol %" does not support the examiner's allegation that both the copolymer containing two vinyl esters and the copolymer containing vinyl acetate and ethylene are incompletely described since there is no basis given for the relative amounts of comonomer.

Furthermore, Wacker-Chemie brochures (copy attached) defines Vinnapas® B 500/20 VL as a vinyl acetate-vinyl laurate copolymer composed of ca. 80% vinyl acetate and 20% vinyl laurate (see also D'Amelia, col. 5, lines 21-24). Vinnapas® B 500/40 VL is defined as a vinyl acetate-vinyl laurate copolymer composed of ca. 60% vinyl acetate and 40% vinyl laurate. Also, Lanxess brochures (copy attached) define the vinyl acetate content of various ethylene-vinyl acetate copolymers (Levapren®) in terms of simple "%".

2. With respect to the examiner's objection to the use of relative term "about" in connection with new amounts as being new matter (e.g., "0 to about 75% by weight ethylene-vinyl acetate and "0 to about 10% by weight metal oxides"), applicant has canceled such terminology exemplified by the examiner. Accordingly, it is now believed that all objections to the specification can now be withdrawn.

#### Claim Objections

The examiner has advised applicant that should claims 10 and 11 be found allowable, claims 39 and 40 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof.

#### Response to the Claim Objection

In view of the cancellation of claims 39 and 40, it is believed that the provisional claim objections can be withdrawn.

**Claim Rejections – 35 USC § 112**

Claims 5, 7, 9-11, 39 and 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

1. With respect to claims 5, 10, 11, 39 and 40, the addition of basis for the relative amounts of comonomer in the elastomeric copolymer (i.e., % by weight) is new matter. No support is found for such basis in the specification as originally filed.

2. With respect to claims 7, 11 and 40, the addition of basis for the relative amounts of comonomer in the elastomeric polymer (i.e., % by weight) is new matter. No support is found for such a basis in the specification as originally filed.

3. With respect to claims 9-11, 39 and 40, the use of relative term “about” with respect to new amounts is new matter (e.g., “0 to about 10% by weight metal oxides” and “0 to about 7% by weight adipate type plasticizer”).

**Response to Claim Rejection – 35 USC § 112**

1. With regard to claims 5, 10, 11, 39 and 40, applicant has amended claims 5, 10 and 11 to delete any reference to the term “by weight” to define the relative amounts of comonomer in the vinyl acetate-vinyl laurate copolymer. As argued above under the heading Response to the Objection to the Specification, the USPTO does not require that the relative amounts of a comonomer in a copolymer be defined in any other way than “%”. In view of the above amendments to claims 5, 10 and 11, and the cancellation of claims 39 and 40, it is believed that

this rejection can be withdrawn. Accordingly, it is requested that that this rejection of claims 5, 10 and 11 under 35 USC 112 be withdrawn. Claims 39 and 40 have been canceled.

2. With regard to claims 7, 11 and 40, applicant has amended claims 7 and 11 to delete any reference to the term "by weight" to define the relative amounts of comonomer in the ethylene-vinyl acetate copolymer. As argued above under the heading Response to the Objection to the Specification, the USPTO does not require that the relative amounts of a comonomer in a copolymer be defined in any other way than "%". In view of the above amendments to claims 5, 10 and 11, and the cancellation of claim 40, it is believed that this rejection can be withdrawn. Accordingly, it is requested that that this rejection of claims 7 and 11 under 35 USC 112 be withdrawn. Claim 40 has been canceled.

3. With regard to claims 9-11, 39 and 40, applicant has amended claims 9-11 to conform to the original claims 9-11. Accordingly, it is requested that this rejection of claims 9-11 under 35 USC 112 be withdrawn. Claims 39 and 40 have been canceled.

#### Claim Rejections – 35 USC § 102

1. Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartman et al (US. 5,173,317). The examiner alleges that Hartman et al discloses a chewing gum composition comprising a 10-45 wt % vinyl laurate/vinyl acetate copolymer containing 10-45 wt % of vinyl laurate (col. 2, lines 23-47), polyisobutylene (col. 2, lines 48-50); and other additives such as plasticizers (col. 2, line 57 to col. 3, line 6) and fillers, texturizers, colorants, and antioxidants (col. 4, lines 5-38). The examiner points to Table I in col. 4 to exemplify amounts of ingredients. The limitation "exhibiting improved heat resistance, pressure resistance, and fluid impermeability" is inherently met by Hartman et al since it clearly anticipates the presently claimed composition. Case law holds that a material and its properties are inseparable, *In re Spada*, 911 F2d 705, 709, 15 USPQ2d 1655, 1658 (Fed Cir. 1990). The examiner concludes that, in light of the above, it is clear that Hartman et al anticipates the presently cited claims.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by D'Amelia et al (US 4,968,511). The examiner alleges that D'Amelia et al discloses a chewing gum composition comprising 1.5-25 wt% of certain vinyl polymers containing copolymers of vinyl alkyl esters (col. 4, line 30 to col. 5, line 28), copolymers of ethylene and vinyl alkyl esters (col. 5, line 30 to col. 6, line 36), and mixtures thereof (col. 7, lines 52-53); and up to 20 wt% fillers and plasticizers (see examples, e.g., Table 1). The limitation "exhibiting improved heat resistance, pressure resistance, and fluid impermeability" is inherently met by D'Amelia et al et al since it clearly anticipates the presently claimed composition. Case law holds that a material and its properties are inseparable, *In re Spada*, 911 F2d 705, 709, 15 USPQ2d 1655, 1658 (Fed Cir. 1990). The examiner concludes that, in light of the above, it is clear that D'Amelia et al anticipates the presently cited claims.

#### Response to Rejections – 35 USC § 102

1. With respect to the rejection of claims 1-6 and 8 under 35 U.S.C. 102(b) as being anticipated by Hartman et al, applicant previously amended claim 1 to define the composition of the present invention as being an automotive component composition. The composition is further defined in the claim as exhibiting improved heat resistance, pressure resistance, and fluid impermeability. The automotive component composition of the present invention consists essentially of: A) about 2 to 75% by weight of a copolymer containing a first vinyl ester and a second vinyl ester, wherein the first vinyl ester is a vinyl ester of a lower carboxylic acid having 2 to 6 carbon atoms; B) about 0 to 75% by weight of an elastomeric polymer selected from the group set forth in claim 1; and C) about 25 to 75% by weight additives set forth in claim 1.

Hartman et al, on the other hand, specifically teach a gum base composition which is substantially free of polyvinyl acetate and glycerol triacetate. Preferably, the gum base of Hartman et al does not contain any other vinyl polymer. The chewing gum base composition of Hartman et al also includes a soft elastomer identified as polyisobutylene (PIB), and further

contains plasticizers, softeners, colorants, whiteners, antioxidants and preservatives, none of which are included in the list of additives necessary in the present invention, nor are any of the additives of the present invention included in those set forth by Hartman et al. The examiner will note that magnesium carbonate, calcium carbonate, titanium dioxide and talc have been eliminated from the list of fillers in the present application. Since the present invention is directed to an automotive component composition which is totally distinct from the chewing gum composition taught by Hartman et al. The only thing that the chewing gum composition of Hartman et al has in common with the automotive component composition of the present invention is that both compositions contain a vinyl acetate-vinyl laurate copolymer. Clearly, the chewing gum composition of Hartman et al does not anticipate the automotive component composition of the present invention. Furthermore, applicant finds nothing in the Hartman et al patent that would render the present automotive component composition obvious. It is believed that a person skilled in the art of manufacturing automotive components such as hoses, belts, seals, engine mounts, etc, would not consult a totally different field such as the food industry, particularly, chewing gum and chewing gum bases in an effort to determine a composition useful in the manufacture of automotive components. Even if one skilled in the art of manufacturing automotive components were to become aware of the teaching of Hartman et al, it is believed that such a skilled person would not be motivated by the teachings of Hartman et al to totally alter the composition of Hartman et in such a way as to provide an automotive component composition. Therefore, it is believed that the present automotive component composition is neither anticipated nor rendered obvious by the chewing gum or chewing gum base composition of Hartman et al.

Applicant contends that the requirement for anticipation under 35 U.S.C. 102(b) specifies that "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." Obviously, claims directed to an automotive component composition is not patented or described in the patent to Hartman which teaches a chewing gum composition. The examiner cites case law which holds that "where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended

use for the invention, the preamble is not a claim limitation." *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). Applicant submits that the invention is now defined as "an automotive component composition" which is not simply a stated purpose or intended use for the composition. In any case, the present automotive component composition has a formulation that is totally different from the chewing gum or chewing gum base composition taught by Hartman et al. Accordingly, applicant respectfully requests that the rejection of claims 1-8 under 35 U.S.C. 102(b) over the patent to Hartman et al be withdrawn.

2. With respect to the rejection of claims 1-8 under 35 U.S.C. 102(b) as being anticipated by D'Amelia et al, applicant has amended claim 1 to define the composition of the present invention as being an automotive component composition. The composition is further defined in the claim as exhibiting improved heat resistance, pressure resistance, and fluid impermeability. The automotive component composition of the present invention consists essentially of: A) about 2 to 75% by weight of a copolymer containing a first vinyl ester and a second vinyl ester, wherein the first vinyl ester is a vinyl ester of a lower carboxylic acid having 2 to 6 carbon atoms; B) about 0 to 75% by weight of an elastomeric polymer selected from the group set forth in claim 1; and C) about 25 to 75% by weight additives set forth in claim 1.

D'Amelia et al, specifically teach the preparation of a commercially useful chewing gum product having a base polymer of (1) homopolymers of vinyl alkyl esters, (2) copolymers of two vinyl alkyl esters, (3) copolymers of ethylene and one vinyl alkyl esters, (4) terpolymers of vinyl alcohol, ethylene and one vinyl alkyl ester, and (5) terpolymers of vinyl alcohol and two vinyl alkyl esters. The base polymer further contains plasticizers, fillers, bulk sweeteners, intense or artificial sweeteners, flavoring agents, coloring agents, and emulsifiers, none of which are included in the list of additives of the present invention. Clearly, the present invention is not anticipated by the patent to D'Amelia et al. Furthermore, applicant contends that the present invention would not be obvious over the teaching of D'Amelia et al. As argued in the above 102(b) rejection of claims 1-6, and 8 over the patent to Hartman et al, it is believed that a person involved in the automotive industry, particularly in the manufacture of automotive hoses, belts, etc would not be



led to the present invention by the teachings of the patent to D'Amelia et al which teach a formulation for chewing gum.

As stated above, applicant contends that the requirements for anticipation under 35 U.S.C. 102(b) "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." Obviously, a patent disclosing a chewing gum composition does not anticipate the present invention which is directed to an automotive component composition. The examiner cites case law which holds that "where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation." *Rowe v. Dror*, 112 F.3d 473,478,42,USPQ2d 1550, 1553 (Fed. Cir.1997). Applicant submits that the invention is now defined as "an automotive component composition" which is not simply a stated purpose or intended use for the composition. In any case, the present automotive component composition has a formulation that is totally different from the chewing gum composition taught by D'Amelia et al. Accordingly, applicant respectfully requests that the rejection of claims 1-8 under 35 U.S.C. 102(b) over the patent to D'Amelia et al be withdrawn

Claim Rejections - 35 U.S.C. § 103

1. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpaentable over Rosenbloom et al (US 6,464,607) in view of D'Amelia et al (US 4,968,511). The examiner alleges that Rosenbloom et al discloses a composition used in a power transmission belt comprising 0-50 parts by weight (pbw) of an elastomer such as ethylene-vinyl acetate copolymer (col. 3, lines 23-37); 0.5-3 phr fatty acids such as stearic acid; 5-250 phr of carbon black (col. 3, lines 58-67); 0-80 phr silica (col. 4, lines 29-49); 1-100 phr plasticizer; 1-12 phr organic peroxides (col. 5, lines 3-20); 1-30 phr of coagents such as triallyl cyanurate, triallyl phosphatol, and n,n'-m-phenylene-dimaleimide (col. 5, lines 2-31); 1-5 phr antioxidant such as trimethyl-dihydroquinoline. The examiner states that Rosenbloom et al does not teach the use of a copolymer containing a first

vinyl ester and a second vinyl ester like presently claimed; however, the examiner alleges that Rosenbloom et al is open to the use of any suitable reinforcing rubber, including ethylene-vinyl acetate copolymer (col. 3, lines 22-37).

D'Amelia et al is cited as disclosing an elastomeric composition and teaches that any one of or a combination of (col.7, lines 52-23) copolymers of two vinyl alkyl esters (e.g., vinyl acetate/vinyl laurate copolymer) (col. 4, line 30 to col. 5, line 2) and copolymers of ethylene and one vinyl alkyl ester (e.g. ethylene/vinyl acetate copolymer (col. 5, line 30 to col. 6, line 36) may be used with no exception of variation in the final product. Thus, it is the examiner's position that a copolymer of two vinyl alkyl esters and copolymer of ethylene and one vinyl alkyl ester are equivalent and interchangeable as taught by D'Amelia et al. The examiner states that case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. (*In re Ruff* 118 USPQ 343 (CCPA 1958). The examiner concludes that, given that Rosenbloom et al is open to the use of a suitable rubber and given that a copolymer of two vinyl esters and a copolymer of ethylene and a vinyl ester are equivalent and interchangeable as taught by D'Amelia et al, it would have been obvious to one of ordinary skill in the art to utilize a copolymer of two vinyl alkyl esters (in particular, vinyl acetate/vinyl laurate) or a combination of the two copolymers in the composition of Rosenbloom et al and thereby arrive at the presently cited claims. The examiner suggests that while D'Amelia et al is drawn to a chewing gum formulation, the fact remains that it is relevant and applicable.

2. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenbloom et al (US 6,464,607) in view of D'Amelia et al (US 4,968,511) and further in view of Williams (US 5,492,971) and Barclay et al (US 2002/0042464).

With respect to the references to Rosenbloom et al and D'Amelia et al, the examiner refers to the above discussion.

Rosenbloom et al does not disclose the use of trioctyl trimellitates as a plasticizer, of 1-octanodecanamine as a processing agent among its conventional additives, nevertheless, Rosenbloom et al is open to the use of any conventional additive (col. 4, lines 19-28).

Williams is cited as disclosing elastomeric compositions and describes a variety of conventional additives in elastomer compounding, including a processing aid such as octadecylamine (col. 4, lines 20-34).

Barclay et al is cited as disclosing a cured elastomer composition and teaches plasticizers such as trioctyl trimellitates commonly used in elastomeric systems (0019).

The examiner concludes that, given that Rosenbloom et al is open to the use of any conventional additives, it would have been obvious to one of ordinary skill in the art to utilize a commonly known processing aid such as octadecylamine as taught by Williams and a plasticizer such as trioctyl trimellitate as taught by Barclay et al in the composition of Rosenbloom et al in suitable amounts and thereby arrive at the presently cited claims.

Response to the claim rejections - 35 U.S.C. § 103

1. With respect to the rejection of claims 1-9 under 35 U.S.C. 103(a) over Rosenbloom et al in view of D'Amelia et al, applicant submits that the vinyl acetate-vinyl laurate copolymer component (which is absent from the Rosenbloom et al patent) is the major ingredient of the present automotive component composition and indeed forms the matrix in which the various other components are incorporated. Therefore, the vinyl acetate-vinyl laurate copolymer is a most critical ingredient, and may be the most critical ingredient, of the present invention. Rosenbloom, on the other hand, teaches a power transmission belt wherein the major ingredient is an ethylene-alpha olefin, particularly, ethylene-propylene-diene monomer (EPDM). Rosenbloom further teaches that the EPDM composition may or may not contain an ethylene-vinyl acetate

copolymer. There is no mention of a copolymer containing a first vinyl ester and a second vinyl ester, and certainly no teaching of vinyl acetate-vinyl laurate copolymer. The examiner cites the patent to D'Amelia et al as disclosing an elastomeric composition and teaches that any one of or a combination of copolymers of two vinyl alkyl esters (e.g., vinyl acetate/vinyl laurate copolymers and copolymers of ethylene and one vinyl alkyl ester (e.g., ethylene/vinyl acetate copolymer) may be used with no expectation of variation in the final product. According to the examiner, the mere substitution of an equivalent as taught by analogous prior art is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. The examiner concludes that, given that Rosenbloom et al is open to the use of a suitable rubber and given that a copolymer of two vinyl esters and a copolymer of ethylene and a vinyl ester are equivalent and interchangeable as taught by D'Amelia et al, it would have been obvious to one of ordinary skill in the art to utilize a copolymer of two vinyl alkyl esters (in particular, vinyl acetate/vinyl laurate) or a combination of the two copolymers in the composition of Rosenbloom et al and thereby arrive at the presently cited claims. Applicant contends that the key words to the examiner's holding are "analogous prior art". The examiner suggests that while D'Amelia et al is drawn to a chewing gum formulation, the fact remains that it is relevant and applicable. In view of the amendment to claim 1 where the composition is now defined as "an automotive component composition", applicant submits that the combination of Rosenbloom et al in view of D'Amelia et al is not proper since, as mentioned above, Rosenbloom et al disclose a power transmission belt formed from an elastomeric composition comprising an ethylene-alpha olefin elastomer such as ethylene-propylene-diene monomer (EPDM) which any or may not contain a rubber which may or may not be an ethylene-vinyl acetate copolymer, there is no mention of a copolymer containing a first vinyl ester and a second vinyl ester, and certainly no mention of vinyl acetate-vinyl laurate copolymer in the patent to Rosenbloom et al. The patent to D'Amelia et al, which is directed to chewing gum, a totally nonanalogous art and material with respect to either the Rosenbloom et al patent or the present invention, teaches the presence of a copolymer of vinyl acetate and vinyl laurate in their chewing gum composition. Applicant believes that the obviousness rejection must fail because there is no suggestion or motivation in the prior art cited for combining the references, "A determination of obviousness must involve

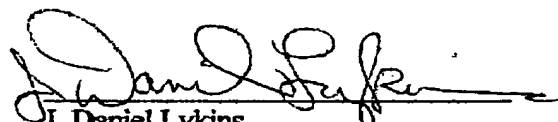
more than indiscriminately combining prior art; a motivation or suggestion to combine must exist." *Micro Chemical, Inc. v. Great plains Chemical Co.*, 41 USPQ 2d 1238, 1244 (Fed. Cir. 1997). Furthermore, the teaching or suggestion must be found in the prior art, not in the applicant's disclosure, *In re Vaack*, 947 F. 2D 488, 20 USPQ 2d 1438 (Fed. Cir. 1991). Accordingly, It is believed that the combination of Rosenbloom et al and D'Amelia et al is improper and that the rejection of claims 1-9 under 35 U.S.C. 103(a) as being obvious over Rosenbloom et al in view of D'Amelia et al can now be withdrawn. Therefore, in view of the above remarks, it is respectfully requested that this rejection be withdrawn.

2. With respect to the rejection of claims 10 and 11 under 35 U.S.C. 103(a) over Rosenbloom et al in view of D'Amelia et al and further in view of Williams and Barclay et al, applicant submits that claims 10 and 11 are simply further limitations of the base claim 9 and that, if an independent claim is nonobvious under 35 U.S.C. 103(a), then any claims depending therefrom is nonobvious.

In view of the forgoing amendments and remarks, it is believed that this application is now in condition for allowance and an early indication thereof is earnestly solicited.

Respectfully submitted,

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